

PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE TOTAL RECONSTRUCTION OF THE EXISTING TRAFFIC CONTROL SIGNAL AT THE INTERSECTION OF MD 157 AND MOORGATE ROADMEADOW LANE IN BALTIMORE COUNTY. MD 157 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION. THE INTERSECTION OPERATION WILL ALSO BE CHANGED FROM A NEMA SIX PHASE TO A NEMA FOUR PHASE, ELIMINATING THE LEFT TURN PHASES FOR N.B. AND S.B. MD 157. THE ADDITION OF PEDESTRIAN PHASES WILL ALSO BE INCORPORATED.

INTERSECTION OPERATION

THE INTERSECTION WILL NOW OPERATE IN A NEMA FOUR-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH CONCURRENT PEDESTRIAN PHASES ACROSS THE NORTH LEG AND SOUTH LEG OF MD 157. VIDEO DETECTION CAMERA FOR SIDE STREETS, AND LOOP DETECTION FOR ACCESS ROAD.

CONTROLLER REQUIREMENTS

INSTALL A FULL-TRAFFIC-ACTUATED, EIGHT-PHASE CONTROLLER WITH SYSTEM PACKAGE, VIDEO DETECTION INTERFACE EQUIPMENT, AND TWO (2) FOUR-CHANNEL, TIME-DELAY-OUTPUT LOOP DETECTOR AMPLIFIER HOUSED IN A NEMA SIZE "6" BASE MOUNTED CABINET.

SPECIAL NOTE

UPON COMPLETION OF THIS PROJECT THE CONTRACTOR SHALL NOTIFY MR. ROBERT SNYDER OF THE SHA AT (410) 787-7635 TO ARRANGE FOR THE PHONE LINE INSTALLATION. THE CONTRACTOR IS TO PROVIDE MR. SNYDER WITH THE NEAREST STREET ADDRESS, ZIP CODE, AND PHONE NUMBER.

PHASING CHART

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17
PHASE 2 & 6	G	G	G	G	G	R	R	R	R	R	R	R	R	DW	DW	DW	DW
2 & 6 CHANGE	Y	Y	Y	Y	Y	Y	R	R	R	R	R	R	R	DW	DW	DW	DW
PHASE 4 & 8	R	R	R	R	R	G	G	G	G	G	G	G	G	DW	DW	DW	DW
4 & 8 CHANGE	R	R	R	R	R	G	G	G	G	G	G	G	G	DW	DW	DW	DW
PHASE 4 ALT. & 8	R	R	R	R	R	G	G	G	G	G	G	G	G	WK	WK	DW	DW
PED CLEAR	R	R	R	R	R	G	G	G	G	G	G	G	G	FL/DW	FL/DW	DW	DW
4 ALT. & 8 CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
PHASE 4 & 8 ALT.	R	R	R	R	R	G	G	G	G	G	G	G	G	DW	DW	WK	WK
PED CLEAR	R	R	R	R	R	G	G	G	G	G	G	G	G	DW	DW	FL/DW	FL/DW
4 & 8 ALT. CHANGE	R	R	R	R	R	Y	Y	Y	Y	Y	Y	Y	Y	DW	DW	DW	DW
FLASHING OPERATION	FLY	FLY	FLY	FLY	FLY	FLY	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	FL/R	DARK	DARK	DARK	DARK

EQUIPMENT LIST "B"

B. EQUIPMENT TO BE FURNISHED AND/OR INSTALLED BY CONTRACTOR

ITEM NO.	QUANTITY	DESCRIPTION
1001	3 EA	MAINTENANCE OF TRAFFIC
2001	36 CY	CLASS 2 EXCAVATION
2002	5 CY	TEST PIT EXCAVATION
5001	45 LF	REMOVAL OF EXISTING PAVEMENT LINE MARKING - ANY WIDTH
5005	685 LF	FURNISH AND INSTALL 12 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
5006	45 LF	FURNISH AND INSTALL 24 IN. WHITE HEAT APPLIED PERMANENT THERMOPLASTIC PAVEMENT MARKING
6001	140 LF	FURNISH AND INSTALL DEPRESSED CURB AND GUTTER
8001	14 CY	FURNISH AND INSTALL CONCRETE FOR SIGNAL FOUNDATION
8002	8 EA	FURNISH AND INSTALL 12 IN. PEDESTRIAN SIGNAL HEAD SECTION
8008	1 EA	FURNISH AND INSTALL 200 FT. VIDEO DETECTION CONTROL CABLE
8009	1 EA	FURNISH AND INSTALL 300 FT. VIDEO DETECTION CONTROL CABLE
8014	1 EA	FURNISH AND INSTALL 16.5 FT. MAST ARM POLE WITH 50 FT. MAST ARM WITH 15 FT. "T" DIMENSION
8018	1 EA	FURNISH AND INSTALL PEDESTAL POLE ANY SIZE
8019	LS	REMOVE AND DISPOSE OF EXISTING EQUIPMENT
8027	41 LF	FURNISH AND INSTALL 4 IN. X 4 IN. WOOD SUPPORT
8029	500 LF	FURNISH AND INSTALL NO. 6 AWG STRANDED BARE COPPER WIRE
8035	120 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8036	320 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - BORED
8038	670 LF	FURNISH AND INSTALL 3 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8039	20 LF	FURNISH AND INSTALL 4 IN. SCHEDULE 80 RIGID ELECTRICAL PVC CONDUIT - TRENCHED
8045	1 EA	FURNISH AND INSTALL ELECTRICAL UTILITY SERVICE EQUIPMENT 120/240 VOLTS, 60 AMPS
8046	30 LF	FURNISH AND INSTALL ELECTRICAL CABLE 1-CONDUCTOR NO. 4 AWG - THHN/THWN
8050	4 EA	FURNISH AND INSTALL NON INVASIVE PROBE WITH 500 FT. LEAD-IN
8052	11 EA	FURNISH AND INSTALL ELECTRICAL HANDHOLE
8054	27 SF	INSTALL GROUND MOUNTED SIGN
8055	54 SF	INSTALL OVERHEAD SIGN
8056	2 EA	FURNISH AND INSTALL VIDEO DETECTION CAMERA
8062	1 EA	FURNISH AND INSTALL 27 FT. MAST ARM POLE WITH 50 FT. MAST ARM
8066	1 EA	FURNISH AND INSTALL 27 FT. MAST ARM POLE WITH 70 FT. MAST ARM
8069	1 EA	FURNISH AND INSTALL 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE
8073	5 EA	FURNISH AND INSTALL GROUND ROD 3/4 IN. DIAMETER X 10 FT. LENGTH
8074	3 EA	FURNISH AND INSTALL 8 IN. VEHICULAR SIGNAL HEAD SECTION
8075	27 EA	FURNISH AND INSTALL 12 IN. VEHICULAR SIGNAL HEAD SECTION
8080	500 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR (ALUMINUM SHIELDED)
8081	515 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 14 AWG
8082	515 LF	FURNISH AND INSTALL ELECTRICAL CABLE 3-CONDUCTOR NO. 14 AWG
8083	100 LF	FURNISH AND INSTALL ELECTRICAL CABLE 5-CONDUCTOR NO. 14 AWG
8084	920 LF	FURNISH AND INSTALL ELECTRICAL CABLE 7-CONDUCTOR NO. 14 AWG
8085	275 LF	FURNISH AND INSTALL ELECTRICAL CABLE 2-CONDUCTOR NO. 12 AWG TC
8086	1345 LF	FURNISH AND INSTALL LOOP WIRE ENCASED IN FLEXIBLE TUBING NO. 14 AWG
8087	415 LF	FURNISH AND INSTALL SAW CUT FOR LOOP DETECTOR
8088	4 EA	FURNISH AND INSTALL PEDESTRIAN PUSHBUTTON AND SIGN
8089		SIGN TO READ" PUSH BUTTON TO CROSS <del>MEADOW</del> MEADOW LANE"
8094	1 EA	FURNISH AND INSTALL 15 FT. STREET LIGHTING ARM ON SIGNAL STRUCTURE
	1 EA	INSTALL CONTROLLER AND CABINET BASE MOUNT

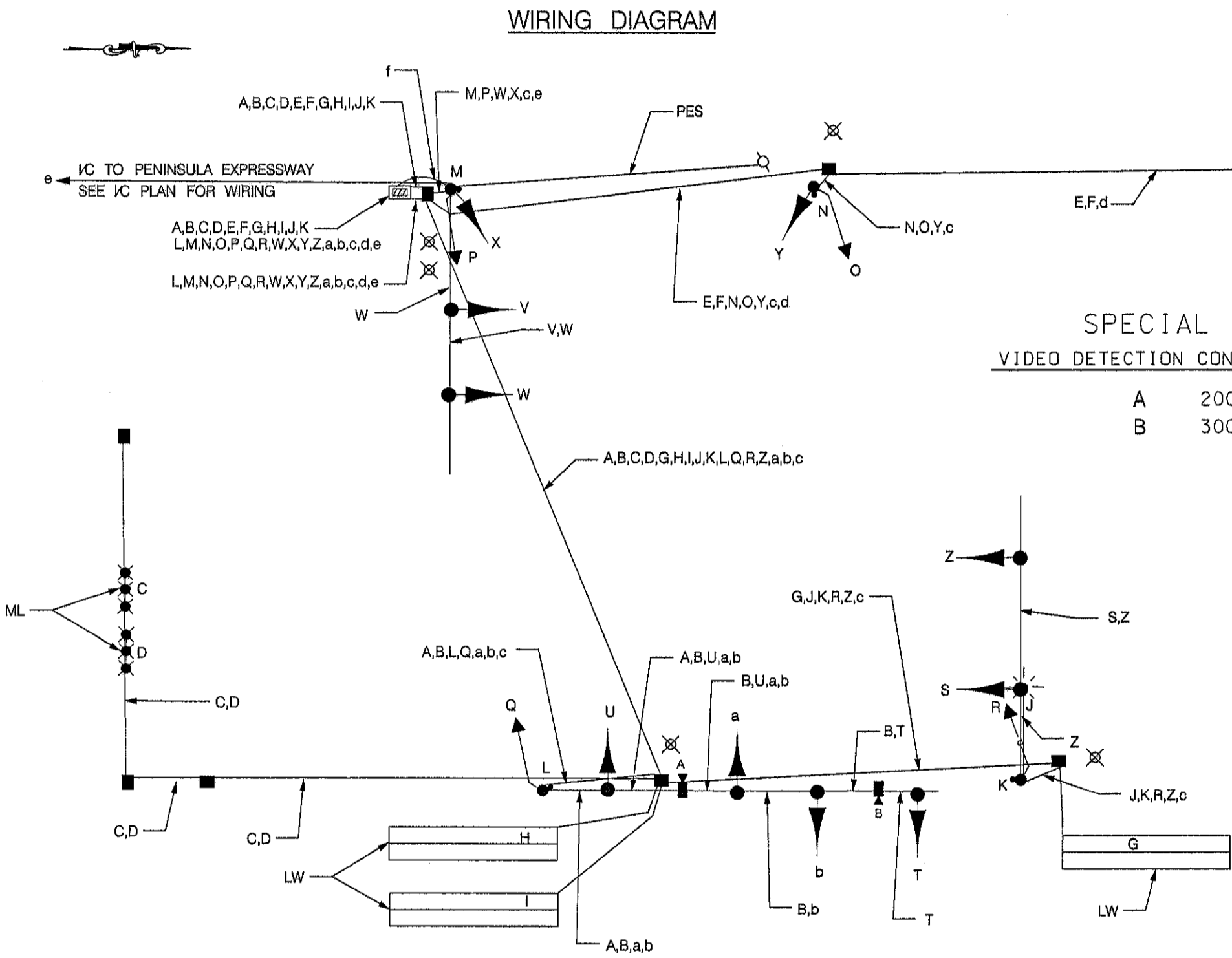
WIRING KEY

A-B	VIDEO DETECTION 250 FT. PREMANUFACTURED CABLE	f	1-CONDUCTOR ELECTRICAL CABLE (4 A.W.G.) THHN/THWN (3X)
C-F	MICRO-LOOP PROBE	PES	PROPOSED ELECTRICAL SERVICE (OVERHEAD)
G-I	2-CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.) ALUMINUM SHIELDED	LW	LOOP WIRE (NO. 14 A.W.G.)
J	2 CONDUCTOR ELECTRICAL CABLE (NO. 12 A.W.G.)	ML	MICRO-LOOP PROBE
K-N	2 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)	X	GROUND ROD
O-R	3 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)		
S-V	5 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)		
W-b	7 CONDUCTOR ELECTRICAL CABLE (NO. 14 A.W.G.)		
c	STRANDED BARE COPPER GROUND WIRE (NO. 6 A.W.G.)		
d	12-PAIR COMMUNICATION CABLE, JELLY FILLED (UNDERGROUND) SEE I/C PLAN		
e	EXISTING 12-PAIR COMMUNICATION SELF-SUPPORTING (OVERHEAD) SEE I/C PLAN		

SPECIAL NOTE:

VIDEO DETECTION CONTROL CABLE LENGTHS

A	200 FT.
B	300 FT.



EQUIPMENT LIST "A"

A. EQUIPMENT TO BE FURNISHED BY MSHA AND INSTALLED BY THE CONTRACTOR.

ITEM NO.	QUANTITY	DESCRIPTION
9016	2 EA	4-CHANNEL, TIME-DELAY-OUTPUT, LOOP DETECTOR AMPLIFIER
9042	1 EA	CONTROLLER ASC II WITH TELEMETRY
9044	1 EA	BASE MOUNTED CABINET NEMA SIZE 6
9086	1 EA	VIDEO DETECTION INTERFACE EQUIPMENT 1-4 CAMERAS
9571	75 SF	ALUMINUM SHEET
		2 EACH R10-11B SIGN (24" X 24") MAST ARM MOUNT
		3 EACH R5-1 SIGN (30" X 30") GROUND MOUNT
		1 EACH D3-1 DUAL FACE SIGN "MEADOW LN WRT. ARROW (VAR. X 16") MAST ARM MOUNT
		1 EACH D3-1 DUAL FACE SIGN "MEADOW LN WRT. ARROW (VAR. X 16") MAST ARM MOUNT
		1 EACH D3-1 DUAL FACE SIGN "MOORGATE RD WRT. ARROW (VAR. X 16") MAST ARM MOUNT
		1 EACH D3-1 DUAL FACE SIGN "MOORGATE RD WRT. ARROW (VAR. X 16") MAST ARM MOUNT
		2 EACH M95-1 (72" X 24") MAST ARM MOUNT

EQUIPMENT LIST "C"

C. MSHA FORCES SHALL REMOVE CONTROLLER AND ALL AUXILIARY EQUIPMENT. THE CABINET AND ALL OTHER MATERIAL TO BE REMOVED BY THE CONTRACTOR AND SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

CONTACT PERSONS FOR DISTRICT 4 ARE AS FOLLOWS:

MR. RANDALL SCOTT  
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CONTACTS FOR OFFICE OF TRAFFIC AND SAFETY

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**SHA** MARYLAND DOT - STATE HIGHWAY ADMINISTRATION  
Office of Traffic & Safety  
TRAFFIC ENGINEERING DESIGN DIVISION  
GENERAL INFORMATION SHEET  
MD 157 AND MOORGATE ROADMEADOW LANE

DRAWN BY: M.HOWELL	F.A.P. NO. N/A	TS NO. 4339	SHEET NO. 2 OF 5
CHECKED BY: NONE	S.H.A. NO. AT3575185		
SCALE: NONE	COUNTY: BALTIMORE	T.I.M.S. NO. G350	
DATE: 8/2004	LOG MILE: ?		